

REMARKS

This Amendment is in response to the Office action mailed on 13 October 2004 (Paper No. 20040928).

Status of the Claims

By this Amendment, claims 12,13,17 and 24 are amended in various particulars, while claims 35 through 42 are newly presented. Thus, claims 12 through 42 are pending in the application. Claims 1 through 11 were previously canceled.

Certified Copy of the Priority Documents

It is first requested that, in the "Priority under 35 U.S.C. § 119" section in PTOL-326 of Paper No. 20040928, please indicate that copies of the certified copies of the priority documents in this application have been received in the National Stage application from the International Bureau under PCT Rule 17.2(a).

Objection fo the Drawings

In paragraph 1 of the Office action, the Examiner objected to Figure 1 and required labeling of Figure 1 as "Prior Art". Applicant respectfully opposes this requirement for the reasons stated in the *Petition* filed on 3 November 2004 in this application, which reasons are incorporated into this Amendment by reference thereto. The Examiner has asserted that, "only that which is old is illustrated in Figure 1."

The Examiner's assertion is improper because none of the several paragraphs of 35 U.S.C. §102 equate "old" with "prior art". Consequently, there is no justification for either the Examiner's objection or requirement. Withdrawal of the objection to the drawings therefore, should be withdrawn.

Rejection of Claims 12, 22-24, 32 & 33 Under 35 U.S.C. §102

In paragraph 3 of the Office action, the Examiner rejected claims 12, 22 thru 24, 32 and 33 under 35 U.S.C. §102(b) as allegedly anticipated by Grimm *et al.*, U.S. Patent No. 5,608,694. Applicants respectfully traverse this rejection for the following reasons:

Grimm *et al.*'694 discloses a mechanical timepiece comprised of a barrel meshing with a tourbillon, using a first driving gear-train and a second display gear-train that mesh directly with the barrel to constitute a mechanical buffer between the two gear-trains that avoids any disturbance of the first gear-train on the time is being set. As explained¹ in Grimm *et al.* ;'694,

"The arrangement of these components on tourbillon 20 and their working is *conventional*"

A tourbillon is complicated mechanism which is believed to have originally been invented by Abraham Louis Breguig (1747-1823) in 1801. The aim of the tourbillon mechanism is to improve the precision of a mechanical watch by statical equilibrium of mechanical in

¹ Grimm et al. '694, column 2, lines 65-68.

exactness. The setup of the original tourbillon, especially the bearings of the cage, is quite different from the invention defined by the pending claims.

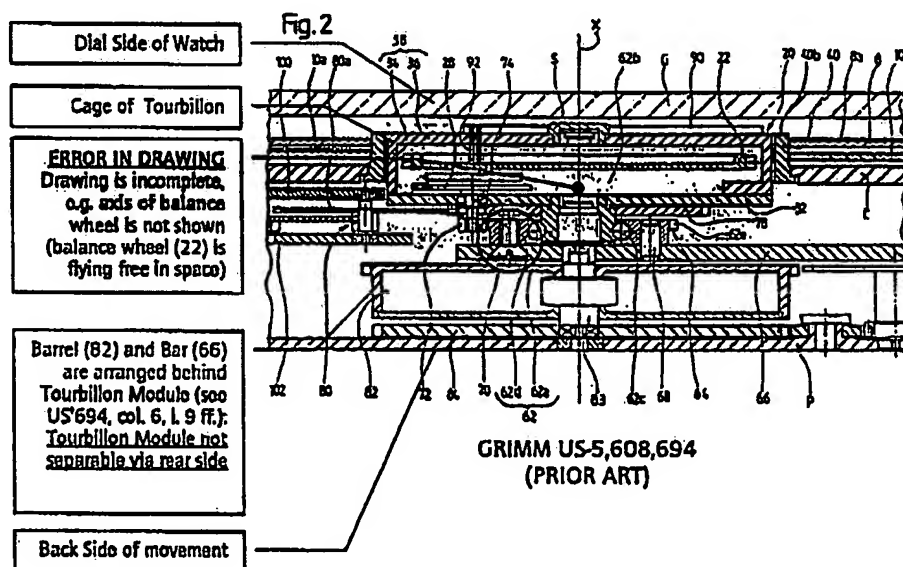
Generally, all tourbillons have in common a balance wheel which is mounted on a rotating platform. In distinction from a normal mechanical movement of a timepiece, the balance wheel of a tourbillon not only oscillates back-and-forth, but additionally rotates continuously around an oscillating axis, with the movement of rotation and movement of oscillation from rotating movement being overlaid onto the oscillating movement. To date, tourbillons are time intensive to construct and assemble principally due to the complicated structure and the difficulty in separating the tourbillon from the remainder of the watch movement. Consequently, watches containing tourbillons are extremely expensive, beginning at approximately U.S. \$100,000.00. The primary difficulty in the construction of a timepiece containing a tourbillon has, heretofore, been that the watch movement has been constructed and assembled around the tourbillon. Therefore, when the tourbillon requires maintenance, it is generally necessary to disassemble the watch movement, almost completely, in order to gain access to the tourbillon's mechanism.

As was explained on page 3 of Applicant's English language translation of the original specification, the time indicator defined by the pending claims is, as a "whole", "fully separable from the movement, which advantageously enables Applicant's tourbillon module to be 'assembled by itself and be adjusted outside the movement' as a module." Specifically, Applicant's tourbillon module may be removed to the backside of the timepiece, as is best seen from Applicant's Figures 5 and 6, without requiring disassembly

of movement of the time indicator.

Independent claims 12 and 24 reflect this difference in structure, with claim 12 defining a time indicator “comprising a movement element and a flying tourbillon module,” with “said flying tourbillon module comprises an independent element relative to said time indicator.” Process claim 24 defines the assembly as comprising the steps of “providing the time indicator” and “providing a flying tourbillon module” with “a plurality of elements forming an interval module for supporting the regulatory elements” of the “time indicator” and “mounting the flying tourbillon module in a time indicator as said *integral module* separable from the movement element.”

In contradistinction, Grimm *et al.* '694, as shown in the accompanying Figure 2,



places its "central power escapement tourbillon 20" bearing "second hand index 90" adjacent to the glass covering the dial.² Barrel 82, tourbillon bar 66 and ball bearing 62 are interposed between the escapement tourbillon 20 and the rear plate "P". As explained by Grimm *et al.* '694³,

"A suspended assembly cantilever the structure has thus been achieved, without an upper bar, for it can be noted that from the side of glass G, tourbillon 20 is free from any mechanical coupling since it is not connected to any additional guiding element."

The structure, as explained by Grimm *et al.* '694, "completely frees the upper part of said tourbillon."⁴ As illustrated in the foregoing FIG. 2 of Grimm *et al.* '694, barrel 82 and bar 66 are interposed between tourbillon 20 and plate "P";⁵ consequently, tourbillon 20 is not separable from the surrounding movement of Grimm *et al.* '694 via the rear side covered by plate "P". This tourbillon taught by Grimm *et al.* '694 is integrated into the movement of the time indicator, and is not constructed either as a "module" or as a "module which is separable from said movement element via a rear side of said time indicator." In short, the integration of the tourbillon taught by Grimm *et al.* '694 requires partial, if not complete

² The Examiner's attention is invited to note that the "conventional" tourbillon illustrated in Grimm *et al.* '649 is shown only as a representative structure; typically, tourbillons are constructed with several tens of individual parts, totaling about one hundred; or more, components. Grimm *et al.* '694 is deceptively incomplete in its omission of almost all of the constituent component parts of a "conventional" tourbillon.

³ Grimm *et al.* '694, column 5, lines 28-33.

⁴ Grimm *et al.* '694, column 5, lines 34-35.

⁵ Grimm *et al.* '694, column 6, beginning with line 9.

disassembly as is required to gain access to, and enable removal of "screws 70" which attaches "tourbillon bar 66" and ball bearing 62 to support tourbillon 20 just beneath dial glass "G".⁶ Even after partial disassembly of the movement to enable access to the plurality of screws 70, it is doubtful that the structure of the tourbillon 20 may be removed except through the area occupied by glass "G" due to the presence of lower bar 102, pinion set 80 and dial "C", among other components of the movement.

Under 35 U.S.C. §102(b), unless all of the element of a claim are found within the reference, in the assembly taught by the claim, there is no anticipation under 35 U.S.C. §102(b). Moreover, under 35 U.S.C. § 102(b), it is error to assume that two structures are the same or equivalent simply because they perform the same function. The Federal Circuit has held it error to assume that two structures are the same or equivalent simply because they perform the same function. *Roton Barrier, Inc. v. Stanley Works*, 79 F.3d 1112, 1126-27 (Fed. Cir. 1996); *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 934 (Fed. Cir. 1987) (*en banc*). Accordingly, this rejection is improper under the all elements rule. Withdrawal of the rejection and allowance of claims 1 through 6, 10 through 18, 22 through 25 and 29 through 32 is respectfully requested.

Independent claim 38, together with claims 36 through 42 dependent thereon,

⁶ Grimm *et al.* '694, column 5, line 22, among other passages.

alternatively define Applicant's structure in terms of Applicant's movement and flying tourbillon module. These claims are readily distinguishable and allowable over the prior art.

Objection to Claims 13-21, 25-31, 33 and 34


In paragraph 4 of the Office action, the Examiner objected to claims 13 thru 21, 25 thru 31, 33 and 34 for dependency upon a rejected base claim, but stated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Fee Incurred

First, a fee of \$450.00 is incurred by the filing of a Petition for a two-month extension of time. Second, a fee of \$400 is incurred by the addition of eight (8) claims in excess of total 23. Applicant's check in the total amount of \$850.00 drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,


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